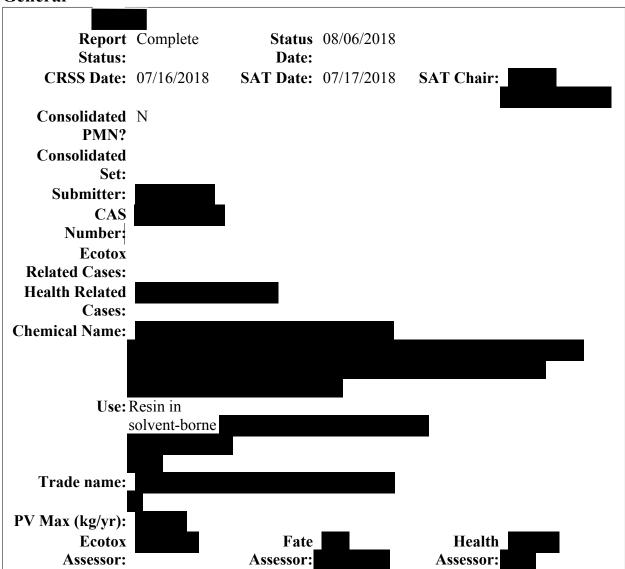
SAT Report for Case # P-18-0233

General



Physical Chemical Information

Molecular Weight:	Physical State - Neat:	Solid	
Percent 500:	Percent 1000:		
Melting Point (Measured):	Melting Point (est):	MPD (EPI):	
Vapor Pressure:	Vapor Pressure	<0.000001 VP (EPI):	
Water Solubility:	(est): Water Solubility (EST):	<0.000001 Water Solubility (EPI):	
Log Kow:	(201)	Log Kow (EPI):	
Log P:	Log P Comment:		

SAT Concern

Ecotox	
Rating	
Comment	
(1):	
Ecotox	
Rating	
Comment	
(2):	
Health	
Rating	
Comment	
(1):	
Health	
Rating	
Comment	
(2):	
	Rating Comment (1): Ecotox Rating Comment (2): Health Rating Comment (1): Health Rating

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	2	

Exposure
Based Review
(Health)?
Exposure Based N
Review
(Ecotox)?
SAT SYST, REPRO,
Keywords: DEV

Fate Assessment P-18-0217-18 **Summary:** FATE: Liquid with MP < °C S < 0.001 mg/L at 25 °C (E)VP < 1.0E-6 torr at °C (E) H < 1.00E-8 (E)POTW removal (%) = via sorption and possible biodeg; Time for complete ultimate aerobic biodeg \geq mo Sorption to soils/sediments = v.strong **PBT** Potential: P3B3 *CEB FATE: Migration to ground water = Bioconcentration factor to be put into E-FAST: 9000 Removal in WWT/POTW

Condition	Rating Values	Comment
	w/ Rating Description	
WWT/POTW	3	4
Sorption:		
WWT/POTW	4	
Stripping:		
Biodegradation	4	
Removal:		

(Overall):

Condition	Rating Values	Comment
	w/ Rating Description	
Biodegradation		
Destruction:		
Aerobic Biodeg	4	
Ult:		
Aerobic Biodeg Prim:		
Anaerobic Biodeg	4	
Ult:		
Anaerobic Biodeg Prim:		
Hydrolysis (t1/2		
at pH 7,25C) A:		
Hydrolysis (t1/2		
at pH 7,25C) B:		
Sorption to	1	
Soils/Sediments:		
Migration to	1	
Ground Water:		
Photolysis A, Direct:		
Photolysis B,		
Indirect:		
Atmospheric Ox		
A, OH:		
Atmospheric Ox		
В, О3:		

Health

Assessment

Health Summary	: Absorption of the neat material is nil all routes; if in solution absorption of the LMW fractions is poor all routes (pchem).
	There is potential concern for lung toxicity based on cationic binding (uncertainty based on dimethylethanolamine (DMEA) and ethylene glycol are released from the absorbed fractions, there are concerns for systemic, reproductive and developmental toxicity.
	The Human Health Form A presents a more complete screening profile for this substance including evaluation of its uncertainties and available information.

Routes of Dermal , Oral, **Exposure:** Inhalation

Test Data Submitted

Test Data Notes: **Submitted:** SAT

conclusions for related cases:

Ecotox Assessment

Test organism	Test	Test	Predicted	Measured	Comments
	Type	Endpoint			
Fish	96-h	LC50	*		NES
Daphnid	48-h	LC50	*		NES
Green Algae	96-h	EC50	*		NES
Fish	-	Chronic	*		NES
		Value			
Daphnid	-	Chronic	*		NES
		Value			
Green Algae	-	Chronic	*		NES
		Value			

Factors	Most	Assessment	CoC	Comment
	Sensitive	Factor		
	Endpoint			
Acute	NES	5/4	*	NES
Acquatic:				
Chronic	NES	10	*	NES
Acquatic:				

Ecotox Route of No

Exposure? releases to water

Factors	Values	Comments
SARs:	Polycationic	
	Polymers	
SAR Class:	Polymers-cationic-	
	insoluble-0.82%	
	A-N	
TSCA NCC	Polycationic	
Category?	Polymers	

Recommended Testing

Ecotox

Value Comments

Predictions are based on SARs for polycationic

polymers (insoluble);

MP (P); S = negligible (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox Factors Comments

Environmental

Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using hazard data on analogous chemicals. Based on these estimated hazard values, EPA concludes that this chemical substance has low environmental hazard.

- Substance falls within the TSCA New Chemicals Category of Polycationic Polymers.
- SAR chemical class of polymers-cationic-insoluble- 0.82% A-N.
- For PMN low hazard based on no effects at saturation.

Environmental Risk:

•Risks were not identified for ecotoxicity.